

Amendments to the Specification

On page 1 immediately below the Title please insert the following paragraph:

Cross Reference To Related Applications

B1 This application is based on, and claims priority to, U.S. Provisional Patent Application Serial Number 60/110,804, filed December 3, 1998, herein incorporated by reference in its entirety.

On page 6, please delete the paragraph beginning on line 7 and ending on line 24 and replace it with the following rewritten paragraph:

Brief Description of the Drawings

Figure 1A is a series of traces depicting currents recorded in *Xenopus* oocytes following injection of KCNQ2 mRNA, KCNQ3 mRNA or an equimolar ratio of KCNQ2 and KCNQ3 mRNAs.

Figure 1B is a histogram showing the average current response to a voltage-clamp step to 0 mV from -70 mV in cells injected with KCNQ2, KCNQ3 or an equimolar ratio of KCNQ2 and KCNQ3 mRNAs (45 ng of each mRNA was injected per oocyte).

Figure 1C is a series of traces depicting the effect of 1 mM TEA on currents elicited from oocytes injected with KCNQ2 mRNA or an equimolar ratio of KCNQ2 and KCNQ3 mRNAs.

Figure 1D is a plot depicting dose response curves for TEA block of KCNQ2 channels and KCNQ2+KCNQ3 channels.

N/E Figure 2A is a series of traces depicting current response to traditional M-current voltage clamp protocol for native current and KCNQ2+KCNQ3 channels.

Figure 2B is a series of traces depicting activation of M-current and KCNQ2+KCNQ3 channels from a holding potential of -60 mV in 5 mV increments.

Figure 2C is a series of plots depicting conductance-voltage curves fitted with a single Boltzmann function.

Figure 2D is a series of traces depicting the observation that the deactivation process had two time constants for both channel types.

Figure 2E is a series of plots depicting the reciprocal time constant for fast deactivation of the native M-current and KCNQ2+KCNQ3 channels.

Figure 3A is a series of traces depicting the blockade of M-current in SCG neurons by XE991.

Figure 3B is a series of traces depicting the blockade of KCNQ2+KCNQ3 channels by XE991.

Figure 3C is a series of plots depicting Dose-response curves for linopirdine (open symbols) and XE991 (closed symbols) for blockade of M-current.

Figure 3D is a series of plots depicting Dose-response curves for linopirdine (open symbols) and XE991 (closed symbols) for blockade of KCNQ2+KCNQ3 channels.

Figure 3E is a series of traces depicting the effect of 10 μ M XE991 on the firing properties of phasic sympathetic neuron recorded from the SCG.

Figure 4A is a histogram showing the distribution of phasic neurons in prevertebral and paravertebral sympathetic ganglia.

N/E
Figure 4B is a photograph of a gel depicting KCNQ2 mRNA expression in sympathetic ganglia.

Figure 4C is a photograph of a gel depicting KCNQ3 mRNA expression in sympathetic ganglia.

Figure 4D is a photograph of a gel depicting KCNQ2 mRNA expression in three brain regions.

Figure 4E is a photograph of a gel depicting KCNQ3 mRNA expression in three brain regions.

Figure 5 is a plot depicting the effect of 0.3 μ M XE991 on hKCNQ2 expressed in a stable line of HEK-293E cells.

Figure 6 is a plot depicting the observation that linopridine induces a time- and concentration-dependent increase in fluorescence of HEK 293E cells stably expressing the hKCNQ2 potassium channel.

ME Figure 7 is a plot depicting the relative effects of several M-current modulators on the fluorescence of HEK 293E cells stably expressing the hKCNQ2 potassium channel.